

29-04-2004

EP0204544

International Patent Application No. PCT/EP02/04544
Applicant: SKG ITALIA S.P.A.
PCT1604AP071te
April 29, 2004

NEW CLAIMS

1. A tooth-cleaning device (1) comprising a main body (2) and a plurality of bristles (3) carried by said main body,

said tooth-cleaning device comprising engaging means (4, 7) adapted to be engaged by the human tongue and allowing said tooth-cleaning device to be displaced within the mouth by means of the tongue;

with said main body being adapted to receive a dispersible substance which is naturally dispersed during use;

said tooth-cleaning device being **characterized in that:**

said main body is impregnated with said dispersible substance.

2. A tooth-cleaning device as claimed in claim 1 **characterized in that** said dispersible substance is selected between a flavoring substance, a toothpaste, or a therapeutical substance.
3. A tooth-cleaning device as claimed in one of claims 1-2, **characterized in that** said engaging means comprise a receiving portion (4, 7) adapted to receive at least a portion of the tongue, allowing said tooth-cleaning device to be displaced within the mouth by means of the tongue.
4. A tooth-cleaning device as claimed in claim 3, **characterized in that** said receiving portion comprises a receiving aperture (4) adapted to receive at least the end portion of the tongue,

AMENDED SHEET

allowing the tooth-cleaning device to be displaced within the mouth by means of the tongue.

5. A tooth-cleaning device as claimed in claim 4, **characterized in that** said main body is a hollow body comprising an inner cavity (7) defining said receiving portion, with said inner cavity communicating with the exterior through said receiving aperture.
6. A tooth-cleaning device as claimed in claim 5, **characterized in that** said hollow body has an approximately hollow cylindrical shape, defining an approximately cylindrical receiving portion.
7. A tooth-cleaning device as claimed in claim 5, **characterized in that** said main body has an approximately hollow thimble shape defining a tapered receiving portion.
8. A tooth-cleaning device as claimed in claim 5, **characterized in that** said main body has an approximately spherical hollow shape defining an approximately spherical receiving portion.
9. A tooth-cleaning device as claimed in claim 4, **characterized in that** said main body defines a trough hole (4) corresponding to said receiving aperture.
10. A tooth-cleaning device as claimed in claim 9, **characterized in that** said main body has an approximately ring or doughnut shape.
11. A tooth-cleaning device as claimed in claim 9, **characterized in that** said main body has an approximately square shape.
12. A tooth-cleaning device as claimed in claim 9, **characterized in that** said main body has an approximately polygonal shape with a predefined number of sides.

13. A tooth-cleaning device as claimed in one of claims 9 to 12, **characterized in that** said main body has a cross sectional shape approximately circular.
14. A tooth-cleaning device as claimed in one of claims 9 to 12, **characterized in that** said main body has an approximately square cross sectional shape.
15. A tooth-cleaning device as claimed in one of claims 9 to 12, **characterized in that** said main body has an approximately polygonal cross sectional shape with a predefined number of sides.
16. A tooth-cleaning device as claimed in one of claims 9 to 12, **characterized in that** said main body comprises a cylindrical surface (5) facing said through hole.
17. A tooth-cleaning device as claimed in claim 16, **characterized in that** said main body has a cross-sectional contour defined by a linear portion and a curved portion joined to said linear portion.
18. A tooth-cleaning device (1) as claimed in one of claims 1 to 2, **characterized in that** said main body (2) is deformable so that it can be shaped so as to form engaging means (4, 7) adapted to be engaged by the human tongue and allowing said tooth-cleaning device to be displaced within the mouth by means of the tongue.
19. A tooth-cleaning device as claimed in claim 18, **characterized in that** said main body can be deformed so as to define a receiving portion (4, 7) adapted to receive at least a portion of the tongue, allowing said tooth-cleaning device to be displaced within the mouth by means of the tongue.

20. A tooth-cleaning device as claimed in claim 19, **characterized in that** said main body can be deformed so as to define a receiving portion comprising a receiving aperture (4) adapted to receive at least the end portion of the tongue, allowing the tooth-cleaning device to be displaced within the mouth by means of the tongue.
21. A tooth-cleaning device as claimed in claim 20, **characterized in that** said main body comprises a flat strip adapted to be deformed so as to define said receiving portion.
22. A tooth-cleaning device as claimed in claim 21, **characterized in that** said flat strip can be deformed into a body of an approximately cylindrical shape, defining an approximately cylindrical receiving portion.
23. A tooth-cleaning device as claimed in claim 21, **characterized in that** said flat strip can be deformed into a body of an approximately thimble shape defining a taper receiving portion.
24. A tooth-cleaning device as claimed in claim 20, **characterized in that** said flat strip can be deformed into a body of an approximately spherical shape defining an approximately spherical receiving portion.
25. A tooth-cleaning device as claimed in claim 20, **characterized in that** said main body comprises an elongated body of an approximately barrel-like shape, adapted to be deformed so as to define a through hole (4).
26. A tooth-cleaning device as claimed in claim 25, **characterized in that** elongated body can be deformed into an approximately ring-shaped or doughnut-shaped body.

27. A tooth-cleaning device as claimed in claim 25, **characterized in that** said elongated body can be deformed into an approximately square-shaped body.
28. A tooth-cleaning device as claimed in claim 25, **characterized in that** said elongated body can be deformed into an approximately polygonal shaped body with a predefined number of sides.
29. A tooth-cleaning device as claimed in one of claims 25-28, **characterized in that** said elongated body has a cross-sectional shape approximately circular.
30. A tooth-cleaning device as claimed in one of claims 25-28, **characterized in that** said elongated body has an approximately square cross-sectional shape.
31. A tooth-cleaning device as claimed in one of claims 25-28, **characterized in that** said elongated body has an approximately polygonal like cross-sectional shape with a predefined number of sides.
32. A tooth-cleaning device as claimed in one of claims 25-28, **characterized in that** said elongated body comprises a flat surface (5).
33. A tooth-cleaning device as claimed in claim 32, **characterized in that** said elongated body has a cross-sectional contour defined by a linear portion and a curved portion (5') joined to said linear portion.
34. A tooth-cleaning device as claimed in one of claims 1-33, **characterized in that** said main body comprises a contact area adapted to be contacted by the tongue, with said bristles being provided outside said contact area.

35. A tooth-cleaning device as claimed in one of claims 1-34, **characterized in that** said main body is formed by a resilient material and a string or cord is provided to be hand-held by the user, thus preventing accidental ingestion of the tooth-cleaning device.
36. A tooth-cleaning device as claimed in claim 35, **characterized in that** said resilient material is selected between gum, silicon, or resin.
37. A tooth-cleaning device as claimed in one of claims 1-36, **characterized in that** said body is inert, non-toxic and impervious to saliva.
38. A tooth-cleaning device as claimed in one of claims 1 to 37, **characterized in that** said main body comprises adhesion improving means (8) adapted to improve the adhesion of the tongue to the main body.
39. A tooth-cleaning device as claimed in claim 38, **characterized in that** said adhesion improving means comprise resilient protrusions extending from said main body.
40. A tooth-cleaning device as claimed in one of claims 1 to 39, **characterized in that** said bristles comprise bristles of at least two different lengths.
41. A tooth-cleaning device as claimed in one of claims 1 to 40, **characterized in that** said bristles comprise bristle tufts.
42. A tooth-cleaning device as claimed in one of claims 1-41, **characterized in that** said main body (2) and said bristles are at least partially embedded in a sweet or a drop (9) of a dispersible substance adapted to be dispersed by the human saliva.